



DEQ's Air Quality and Inspections Division members attend annual Smoke School

With smoke and dust as the more common forms of visible emissions from plants and facilities in the state, the Louisiana Department of Environmental Quality continues to conduct a bi-annual program with the goal of training air quality technicians on emissions testing, along with the federal and state air quality regulations.

"Smoke School" as it is known, is a DEQ program which centers on both classroom and field instruction on smoke testing methods as they relate to facility and plant emissions. The program is offered regularly and is a federally audited EPA method 9 certification program. The school is part of the DEQ air quality technician training cycle, and is designed to be a very thorough and efficient visible emissions certification program. Customized, computer-controlled smoke generators help to bring a sense of realism to the various tests. The half-day field certification program meets or exceeds all EPA Method 9 operator requirements.

In order to remain up to date in their training, the Louisiana Department of Environmental Quality's Air Quality and Inspections Division personnel must complete Smoke School training on a periodic basis. On April 10, 2012, DEQ conducted a refresher course on air quality testing at their DEQ warehouse in Port Allen. Nineteen DEQ environmental scientists and staffers were on hand as students.

"When plants or facilities have an unusual emission, the emitted smoke needs to be tested to ensure that its composition is in compliance with environmental and health regulations," said Keith Jordan, DEQ Environmental Scientist. "Smoke school is a unique program in that it offers DEQ environmental scientists and air technicians a hands-on, practical approach to measuring emissions data in support of our continuing mission to protect human health and the environment."

Under the regulations, field personnel have to recertify every six months, with classes every April



DEQ Environmental Scientists Keith Jordan (left) and Patrick Augustine (far right) conduct the smoke emissions test as DEQ students observe



White smoke is emitted from DEQ's smokestack test model as a training method for determining smoke opacity



and October. Other states utilize contractors to provide the training, but as a cost-saving measure, DEQ runs and maintains their own equipment and provides the training entirely in-house. The test consists of 25 black smoke tests followed by 25 white smoke tests, with students marking the appropriate percentage of opacity for each, with a zero to 100 percentage mark in increments of five percent. For example, no smoke emitted from the smokestack test model would be a mark of zero; moderate would be at 50 percent and a maximum emission would be 100. Students are graded and must achieve a 70 percent score or better in order to pass the session.

Measuring visible emissions in the U.S. began in 1897, with the advent of the Ringelmann Chart, which was one of the first emissions measuring tools created. The model later became the basis for many city, state and federal regulations on smoke density limitations. The training and certification of air quality inspectors was implemented in the 1950s, and the visible emissions observation method underwent revisions. Today, individual state environmental quality agencies work in conjunction with the EPA to set their own air quality standards and regulations.

For more information on air regulations, please visit the DEQ Web site at: <http://www.deq.louisiana.gov/portal/PROGRAMS/Air.aspx>.

